WHAT IS CLAIMED IS:

1. A method of fabricating a stent from a wire, comprising:

(a) winding the wire on a first mandrel;

(b) heating the wound wire to form a coiled spring; and

(c) after said coiled spring has cooled sufficiently, reversing the winding direction of said coiled spring to form the stent.

2. A method as in claim 1, further comprising:

(d) placing said stent on a second mandrel; and

(e) reheating said reversed coiled spring stent for a time sufficiently short as to partially relax said stent.

3. A method as in claim 2 wherein said second mandrel is made up of at least two regions of different heat sink capacities, so that the portion of said stent overlying said at least two regions will be relaxed to different extents during said reheating.

4. A stent made by the method of claim 1.

5. A stent made by the method of claim 2.

6. A stent made by the method of claim 3.

7. A stent comprising a coiled wire characterized in that said wire includes at least one section which is wound in one sense and at least one section which is wound in the opposite sense deployment of said stent taking place by tightly winding the stent onto a catheter and subsequently allowing the stent to resume its normal dimensions.

8. A stent as in claim 7 wherein said wire includes two sections with each of said sections representing substantially half of said wire.

9. A method of deploying a stent of claim 7 in a desired location, comprising:

(a) tightly winding said stent onto a catheter;

(b) immobilizing the two end points of said wire and at least one intermediate point on said wire;

(c) bringing said stent to the desired location where said stent is to be deployed;

(d) releasing said intermediate point on the wire, thereby allowing said stent to unwind while keeping said two end points immobilized; and

(e) releasing said two end points of said wire.

10. A stent as in claim 7 wherein said wire includes at least two sections which are wound in one sense and at least two sections which are wound in the opposite sense.

11. A stent as in claim 7 wherein said wire include a plurality of sections, each section being made up of substantially a single loop.

12. A stent as in claim 11 wherein the stent is connected to a flexible film to form a tube-like member.

13. A method of deploying a stent in a desired location, comprising:

(a) tightly winding said stent onto a catheter;

(b) immobilizing at least two tie-down points on the stent using a disconnectable thread;

(c) bringing said stent to the desired location where said stent is to be deployed;

(d) causing said thread to disconnect at one or more of said tie-down points, thereby releasing said tie-down point, wherein said disconnectable thread is meltable and said thread is disconnected by heating said thread so as to cause said thread to melt.

14. A method of heating a nitinol stent to cause the stent to shift from its martensite phase to its austenite phase and to sense the phase change, comprising:

(a) electrically connecting the stent to an electrical power supply;

(b) supplying electrical current to the stent;

(c) sensing a change in at least one electrical property to indicate the phase change;

(d) controlling said current in response to said change.

15. A method as in claim 14 wherein said electrical property is a voltage drop change.

16. A method as in claim 14 wherein said electrical property is a current change.

17. A stent comprising a coiled wire characterized in that said wire is enveloped in a material shaped so that when the stent is fully deployed, portions of said envelope material occupy gaps between adjoining coils of the stent.